<u>Amendments to the Claims:</u>

Please cancel claims 1, 2 and 8 - 10 without prejudice or disclaimer of the subject matter thereof.

This listing of claims will replace all prior versions, and listings, of claims in the application:

<u>Listing of Claims</u>:

Claims 1 and 2 (Canceled)

3. (currently amended)   A servo detection control system ~~according to Claim 2, further comprising:~~ <u>comprising</u>:

<u>a head change learning means including:</u>

<u>a means for measuring a servo sector interval, which occurs at</u>

<u>the time of head change;</u>

<u>a means for calculating a head-change time difference from a</u>

<u>value measured by the servo sector interval measuring means;</u>

<u>and</u>

<u>a means for storing a result of calculation by the calculating</u>

<u>means;</u>

<u>a means for compensating a start timing of servo detection after head change</u>

<u>using a stored value of the storing means;</u>

<u>wherein the head change learning means further comprises a means for</u>

<u>measuring the amount of head skew in a disk radius direction using a writing signal</u>

<u>in a servo sector after the head change;</u>

<u>a means for storing the amount of head skew; and</u>

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a means for controlling ~~positioning of~~ feed-forward positioning of the head using the amount of head skew.

4. (original)   A servo detection control system according to Claim 3, wherein:

the means for storing a result of calculation is the same means as the means for storing the amount of head skew.

5. (currently amended) A servo detection control system ~~according to Claim 1, wherein:~~ comprising:

a head change learning means including:

a means for measuring a servo sector interval, which occurs at the time of head change;

a means for calculating a head-change time difference from a value measured by the servo sector interval measuring means; and

a means for storing a result of calculation by the calculating means; and

a means for compensating start timing of servo detection after head change using a stored value of the storing means;

wherein the head change learning means further comprises a means for measuring the amount of head skew in a disk radius direction using a writing signal in a servo sector after the head change; and

wherein the head change learning means further comprises a means for measuring the amount of servo sector skew using a servo sector address after the head change.

6. (original) A servo detection control system according to Claim 5, further comprising:

a means for storing the amount of servo sector skew; and

a means for compensating and controlling a servo sector address using the amount of servo sector skew.

7. (original)   A servo detection control system according to Claim 6, wherein:

the means for storing a result of calculation is the same means as the means for storing the amount of servo sector skew.

Claims 8 - 10 (canceled)

11. (currently amended)   A servo detection control method according to Claim 10, further comprising:

measuring a servo sector interval, which occurs at the time of head change among a plurality of heads;

calculating a head-change time difference form the measured value; and

compensating a head-change time difference from the measured value;

compensating a start timing of serve detection after head change using the result of calculation;

measuring the an amount of head skew in a disk radius direction using a writing signal in a servo sector after the head change; and

controlling positioning of feed-forward positioning of a head using the amount of head skew and the time difference.

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12. (original) A servo detection control method comprising:

measuring a servo sector interval, which may occur at the time of head change among a plurality of heads;

calculating head-change time difference from the measured value;

measuring the amount of servo sector skew using a servo sector address after the head change; and

compensating and controlling the servo sector address using the amount of servo sector skew and the time difference.

13. (currently amended)   A hard disk drive comprising:

a rotary storage medium storing user data and a servo signal;

a head reading the user data and the servo signal, which have been written by the medium;

an actuator driving the head;

a controller learning driving of the actuator, said controller ~~comprising~~ including:

a circuit measuring a servo sector interval, which ~~can occur~~ occurs in a change of the head;

a calculator which calculates a head-change time difference ~~of the head~~ from a value measured by the interval measuring circuit; and

a memory for storing a result of calculation of the calculator;

a circuit compensating start timing of servo detection after changing the head using a stored value of the memory;

a sensor detecting a shock from outside; and

a circuit for judging whether or not a result of learning by the controller is adopted, using an output of the sensor.

14. (original) A hard disk drive according to Claim 13, wherein:

the controller further comprises a circuit measuring the amount of head skew in a radius direction of the medium using a writing signal in a servo sector after changing the head.

15. (original) A hard disk drive according to Claim 13, further comprising:

a memory storing the amount of head skew; and

a second controller positioning of feed-forward of the head using the amount of head skew.

16. (original) A hard disk drive according to Claim 15, wherein:

the memory storing a result of calculation is the same memory as the memory storing the amount of head skew.

17. (original) A hard disk drive according to Claim 13, wherein:

the controller further comprises a circuit measuring the amount of servo sector skew using a servo sector address after changing the head.

18. (original) A hard disk drive according to Claim 17, further comprising:

a memory storing the amount of servo sector skew; and

a second controller compensating and controlling a servo sector address using the amount of servo sector skew.

19. (original) A hard disk drive according to Claim 18, wherein:

the memory storing a result of calculation is the same memory as the memory storing the amount of servo sector skew.

20. (original) A hard disk drive according to Claim 13, wherein:

a continuous search mode is applied during learning operation of the controller.

21. (original) A hard disk drive according to Claim 13, wherein:

a continuous search mode is applied during compensation and control operation of the circuit compensating start timing.